NEUROSCIENCE

An International Journal under the editorial direction of IBRO

Volume 85, 1998

TITLE SECTION,
LIST OF CONTENTS,
AUTHOR AND KEY WORD INDEX

PERGAMON

QP
351
N43

NEUROSCIENCE

Chief Editors

P. G. KOSTYUK: *Department of General Physiology, A. A. Bogomoletz Institute of Physiology, Academy of Sciences, 4 Bogomoletz Street, Kiev* 24, 252601 *GSP, Ukraine*

R. LLINÁS: *Department of Physiology and Biophysics, New York University School of Medicine,* 550 *First Avenue, New York* 10016, *U.S.A.*

A. D. SMITH: *Department of Pharmacology, University of Oxford, Mansfield Road, Oxford OX*1 3*QT, U.K.*

Editorial Board

T. ARENDT (*Leipzig*)
G. ASTON-JONES (*Philadelphia, PA*)
G. BERNARDI (*Rome*)
A. BJORKLUND (*Lund*)
A. BLIGHT (*Chapel Hill, NA*)
T. V. P. BLISS (*London*)
J. P. BOLAM (*Oxford*)
P. BRUNDIN (*Lund*)
J. BURES̆ (*Prague*)
G. BUZSÁKI (*Newark, NJ*)
A. L. BYSOV (*Moscow*)
C. CAVADA (*Madrid*)
D. W. CHOI (*St Louis, MO*)
A. CONSTANTI (*London*)
M. COSTA (*Adelaide*)
J. T. COYLE (*Belmont, MA*)
W. CRILL (*Seattle, WA*)
A. C. CUELLO (*Montreal*)
L. DELLA CORTE (*Firenze*)
F. E. DUDEK (*Fort Collins, CO*)
A. W. DUGGAN (*Sydney*)
D. EDGAR (*Liverpool*)
M. M. ESIRI (*Oxford*)
D. S. FABER (*Philadelphia, PA*)
V. V. FANARDJIAN (*Yerevan*)
R. L. M. FAULL (*Auckland*)
R. FISCHER-COLBRIE (*Innsbruck*)
T. F. FREUND (*Budapest*)
G. GABELLA (*London*)
F. H. GAGE (*La Jolla, CA*)
J. GARTHWAITE (*London*)
C. R. GERFEN (*Bethesda, MD*)
D. C. GERMAN (*Dallas, TX*)
H. M. GERSCHENFELD (*Paris*)
J. GLOWINSKI (*Paris*)
J. A. GRAY (*London*)
A. M. GRAYBIEL (*Cambridge, MA*)
H. J. GROENEWEGEN (*Amsterdam*)
R. W. GUILLERY (*Madison, WI*)
M. J. GUTNICK (*Beersheva*)
M. HAMON (*Paris*)
P.J. HARRISON (*Oxford*)
F. F. HEFTI (*Harlow*)
Z. HENDERSON (*Leeds*)
J. HERBERT (*Cambridge*)
M. HERKENHAM (*Bethesda, MD*)
D. E. HILLMAN (*New York, NY*)
T. HÖKFELT (*Stockholm*)
P. HOLZER (*Graz*)
O. HORNYKIEWICZ (*Vienna*)
J. HOUNSGAARD (*Copenhagen*)
S. P. HUNT (*Cambridge*)
H. JAHNSEN (*Copenhagen*)
B. E. JONES (*Montreal*)
E. G. JONES (*Irvine, CA*)
G. JU (*Xi'an*)
J. S. KELLY (*Edinburgh*)
B. I. KHODOROV (*Moscow*)
S. T. KITAI (*Memphis, TN*)
T. KOSAKA (*Fukuoka*)
O. A. KRISHTAL (*Kiev*)
S. N. LAWSON (*Bristol*)
J. D. LEVINE (*San Francisco, CA*)
D. LINDHOLM (*Uppsala*)
C. A. MAGGI (*Florence*)
C. A. MARSDEN (*Nottingham*)
A. I. MATUS (*Basle*)
J. F. MORRIS (*Oxford*)
É. MUGNAINI (*Chicago, IL*)
D. G. NICHOLLS (*Dundee*)
T. ONO (*Toyama*)
O. P. OTTERSEN (*Oslo*)
J. M. PALACIOS (*Barcelona*)
V. H. PERRY (*Oxford*)
J. M. POLAK (*London*)
P. RAKIC (*New Haven, CA*)
H. J. RALSTON (*San Francisco, CA*)
S. J. REDMAN (*Canberra*)
T. S. REESE (*Bethesda, MD*)
L. P. RENAUD (*Ottawa*)
H. A. ROBERTSON (*Halifax, N.S.*)
R. A. RUSH (*Adelaide*)
T. E. SALT (*London*)
R. SCHMIDT-KASTNER (*Miami, FL*)
M. L. SHIK (*Moscow*)
S. SNYDER (*Baltimore, MD*)
M. V. SOFRONIEW (*Cambridge*)
P. SOMOGYI (*Oxford*)
C. SOTELO (*Paris*)
K. STARKE (*Freiburg*)
M. S. STARR (*London*)
M. STERIADE (*Quebec*)
P. STRATA (*Turin*)
K. SUZUKI (*Chapel Hill, NC*)
D. T. THEODOSIS (*Bordeaux*)
A. M. THOMSON (*London*)
K. UNSICKER (*Heidelberg*)
S. R. VINCENT (*Vancouver*)
J. VOOGD (*Rotterdam*)
L. VYKLICKY (*Prague*)
K. D. WALTON (*New York, NY*)
X. S. T. WAN (*Beijing*)
K. WICTORIN (*Lund*)
W. D. WILLIS (*Galveston, TX*)
W. WISDEN (*Cambridge*)
D. J. WOODWARD (*Winston-Salem, NC*)
Y. YAROM (*Jerusalem*)
D. S. ZAHM (*St Louis, MO*)
R. E. ZIGMOND (*Cleveland, OH*)
H. ZIMMERMANN (*Frankfurt*)

IBRO Publications Committee

Chairman, G. W. KREUTZBERG; C. BLAKEMORE, G. K. KOSTOPOULOS, A. D. SMITH, P. G. STRATA

Editorial Assistant: S. J. BEALE (*Oxford*)

Copyright © 1998 IBRO

LIST OF CONTENTS

VOLUME 85 NUMBER 1

M. V. Sokolov, A. V. Rossokhin, T. Behnisch, K. G. Reymann and **L. L. Voronin**	Interaction between paired-pulse facilitation and long-term potentiation of minimal excitatory postsynaptic potentials in rat hippocampal slices: a patch-clamp study	1
T. Mittmann, M. Qü, K. Zilles and **H. J. Luhmann**	Long-term cellular dysfunction after focal cerebral ischemia: *in vitro* analyses	15
M. Qü, T. Mittmann, H. J. Luhmann, A. Schleicher and **K. Zilles**	Long-term changes of ionotropic glutamate and GABA receptors after unilateral permanent focal cerebral ischemia in the mouse brain	29
F. Hajós, K. Zilles, A. Zsarnovszky, P. Sótonyi, K. Gallatz and **A. Schleicher**	Modular distribution of vasoactive intestinal polypeptide in the rat barrel cortex: changes induced by neonatal removal of vibrissae	45
F. Gómez-Pinilla, V. So and **J. P. Kesslak**	Spatial learning and physical activity contribute to the induction of fibroblast growth factor: neural substrates for increased cognition associated with exercise	53
P. A. T. Kelly, D. E. McBean and **I. M. Ritchie**	Intracerebral fetal raphé implants normalize hippocampal function but not cerebrovascular control in serotonin-depleted adult rat brain	63
E. Acquas, C. Wilson and **H. C. Fibiger**	Pharmacology of sensory stimulation-evoked increases in frontal cortical acetylcholine release	73
P. Fossier, M.-F. Diebler, J.-P. Mothet, M. Israel, L. Tauc and **G. Baux**	Control of the calcium concentration involved in acetylcholine release and its facilitation: an additional role for synaptic vesicles?	85
R. Anderson, J. C. Barnes, T. V. P. Bliss, D. P. Cain, K. Cambon, H. A. Davies, M. L. Errington, L. A. Fellows, R. A. Gray, T. Hoh, M. Stewart, C. H. Large and **G. A. Higgins**	Behavioural, physiological and morphological analysis of a line of apolipoprotein E knockout mouse	93
P. Kachidian, J. Vuillet, M. Bartoli, F. Castets, A. Nieoullon and **L. Kerkerian-Le Goff**	Relationships between striatin-containing neurons and cortical or thalamic afferent fibres in the rat striatum. An ultrastructural study by dual labelling	111
A. Dugar, C. Patanow, J. P. O'Callaghan and **J. M. Lakoski**	Immunohistochemical localization and quantification of glial fibrillary acidic protein and synaptosomal-associated protein (mol. wt 25000) in the ageing hippocampus following administration of 5,7-dihydroxytryptamine	123
M. Palkovits, W. S. Young III, K. Kovács, Zs. Tóth and **G. B. Makara**	Alterations in corticotropin-releasing hormone gene expression of central amygdaloid neurons following long-term paraventricular lesions and adrenalectomy	135
I. Gritti, M. Mariotti and **M. Mancia**	GABAergic and cholinergic basal forebrain and preoptic-anterior hypothalamic projections to the mediodorsal nucleus of the thalamus in the cat	149
K. Kultas-Ilinsky, V. Leontiev and **P. J. Whiting**	Expression of 10 $GABA_A$ receptor subunit messenger RNAs in the motor-related thalamic nuclei and basal ganglia of *Macaca mulatta* studied with *in situ* hybridization histochemistry	179
C. Martin, K. E. Chapman, J. R. Seckl and **R. H. Ashley**	Partial cloning and differential expression of ryanodine receptor/calcium-release channel genes in human tissues including the hippocampus and cerebellum	205
F. M. Ross, M. J. Brodie and **T. W. Stone**	The effects of adenine dinucleotides on epileptiform activity in the CA3 region of rat hippocampal slices	217
P. A. Jones, R. A. Smith and **T. W. Stone**	Protection against kainate-induced excitotoxicity by adenosine A_{2A} receptor agonists and antagonists	229

3 559HI XL 12/98 31249-200

S.-J. Huang and **D. W. Robinson**	Activation and inactivation properties of voltage-gated calcium currents in developing cat retinal ganglion cells	239
S. Schmid and **E. Guenther**	Alterations in channel density and kinetic properties of the sodium current in retinal ganglion cells of the rat during *in vivo* differentiation	249
S. Rassnick, G. E. Hoffman, B. S. Rabin and **A. F. Sved**	Injection of corticotropin-releasing hormone into the locus coeruleus or foot shock increases neuronal Fos expression	259
M. T. O'Leary, R. Bujdoso and **W. F. Blakemore**	Rejection of wild-type and genetically engineered major histocompatibility complex-deficient glial cell xenografts in the central nervous system results in bystander demyelination and Wallerian degeneration	269
Q. Zhang, M. Schäfer, R. Elde and **C. Stein**	Effects of neurotoxins and hindpaw inflammation on opioid receptor immunoreactivities in dorsal root ganglia	281
M. J. Perry and **S. N. Lawson**	Differences in expression of oligosaccharides, neuropeptides, carbonic anhydrase and neurofilament in rat primary afferent neurons retrogradely labelled via skin, muscle or visceral nerves	293
N. Kameda, H. Ueda, S. Ohno, M. Shimokawa, F. Usuki, S. Ishiura and **T. Kobayashi**	Developmental regulation of myotonic dystrophy protein kinase in human muscle cells *in vitro*	311

VOLUME 85 NUMBER 2

LETTERS TO NEUROSCIENCE

J. M. Campbell, D. P. Gilmore, D. Russell, C. A. Growney, G. Favor, J. Weir, T. W. Stone and **A. P. Payne**	Extracellular levels of dopamine and its metabolite 3,4-dihydroxy-phenylacetic acid measured by microdialysis in the corpus striatum of conscious AS/AGU mutant rats	323
M. C. Martellotta, G. Cossu, L. Fattore, G. L. Gessa and **W. Fratta**	Self-administration of the cannabinoid receptor agonist WIN 55,212-2 in drug-naive mice	327

COMMENTARY

E. G. Jones	Viewpoint: the core and matrix of thalamic organization	331

RESEARCH PAPERS

V. M. Storozhuk, A. V. Sanzharovsky and **B. I. Busel**	Interaction between dopamine and glutamate in the sensorimotor cortex during conditioned placing reaction	347
G. J. Klapstein, S. Vietla, D. N. Lieberman, P. A. Gray, M. S. Airaksinen, H. Thoenen, M. Meyer and **I. Mody**	Calbindin-D_{28k} fails to protect hippocampal neurons against ischemia in spite of its cytoplasmic calcium buffering properties: evidence from calbindin-D_{28k} knockout mice	361
J. Sandin, I. Nylander, J. Georgieva, P. A. Schött, S. O. Ögren and **L. Terenius**	Hippocampal dynorphin B injections impair spatial learning in rats: a κ-opioid receptor-mediated effect	375
T. Kira, N. Harata, T. Sakata and **N. Akaike**	Kinetics of sevoflurane action on GABA- and glycine-induced currents in acutely dissociated rat hippocampal neurons	383
B. Szabo, L. Dörner, C. Pfreundtner, W. Nörenberg and **K. Starke**	Inhibition of GABAergic inhibitory postsynaptic currents by cannabinoids in rat corpus striatum	395
N. Fitoussi, I. Sotnik-Barkai, C. Tornatore, U. Herzberg and **G. Yadid**	Dopamine turnover and metabolism in the striatum of parkinsonian rats grafted with genetically-modified human astrocytes	405
I. Sillaber, A. Montkowski, R. Landgraf, N. Barden, F. Holsboer and **R. Spanagel**	Enhanced morphine-induced behavioural effects and dopamine release in the nucleus accumbens in a transgenic mouse model of impaired glucocorticoid (type II) receptor function: influence of long-term treatment with the antidepressant moclobemide	415

L. Danober and **H.-C. Pape**	Strychnine-sensitive glycine responses in neurons of the lateral amygdala: an electrophysiological and immunocytochemical characterization	427
N. R. Krenz and **L. C. Weaver**	Sprouting of primary afferent fibers after spinal cord transection in the rat	443
A. J. Todd, R. C. Spike and **E. Polgár**	A quantitative study of neurons which express neurokinin-1 or somatostatin sst_{2a} receptor in rat spinal dorsal horn	459
M. Betty, S. W. Harnish, K. J. Rhodes and **M. I. Cockett**	Distribution of heterotrimeric G-protein β and γ subunits in the rat brain	475
A. G. Obukhov, G. Schultz and **A. Lückhoff**	Regulation of heterologously expressed transient receptor potential-like channels by calcium ions	487
S. A. Fedulova, D. V. Vasilyev and **N. S. Veselovsky**	Voltage-operated potassium currents in the somatic membrane of rat dorsal root ganglion neurons: ontogenetic aspects	497
E. Gebke, A. R. Müller, M. Jurzak and **R. Gerstberger**	Angiotensin II-induced calcium signalling in neurons and astrocytes of rat circumventricular organs	509
J. Priller, M. Reddington, C. A. Haas and **G. W. Kreutzberg**	Stimulation of P_{2Y}-purinoceptors on astrocytes results in immediate early gene expression and potentiation of neuropeptide action	521
P. Peretto, L. Bonfanti, A. Merighi and **A. Fasolo**	Carnosine-like immunoreactivity in astrocytes of the glial tubes and in newly-generated cells within the tangential part of the rostral migratory stream of rodents	527
J. R. Keast and **R. J. Saunders**	Testosterone has potent, selective effects on the morphology of pelvic autonomic neurons which control the bladder, lower bowel and internal reproductive organs of the male rat	543
L. Givalois, V. Grinevich, S. Li, E. Garcia-de-Yebenes and **G. Pelletier**	The octadecaneuropeptide-induced response of corticotropin-releasing hormone messenger RNA levels is mediated by $GABA_A$ receptors and modulated by endogenous steroids	557
R. C. Melcangi, V. Magnaghi, I. Cavarretta, L. Martini and **F. Piva**	Age-induced decrease of glycoprotein Po and myelin basic protein gene expression in the rat sciatic nerve. Repair by steroid derivatives	569
X. Y. Zheng, S. L. McFadden and **D. Henderson**	Faster recovery in central than in peripheral auditory system following a reversible cochlear deafferentation	579
A. Buffo, M. Fronte, A. B. Oestreicher and **F. Rossi**	Degenerative phenomena and reactive modifications of the adult rat inferior olivary neurons following axotomy and disconnection from their targets	587
K. L. Lau, R. G. Glover, B. Linkenhoker and **D. R. W. Wylie**	Topographical organization of inferior olive cells projecting to translation and rotation zones in the vestibulocerebellum of pigeons	605
M. P. Thomas, W. W. Webster, R. B. Norgren Jr, D. T. Monaghan and **R. A. Morrisett**	Survival and functional demonstration of interregional pathways in fore/midbrain slice explant cultures	615
E. N. Yamasaki, V. E. Krupnik and **L. L. Y. Chun**	Developmental study of Müller cells in the rat retina using a new monoclonal antibody, RT10F7	627
Y. D. Bogdanov, P. M. Balaban, D. A. Poteryaev, I. S. Zakharov and **A. V. Belyavsky**	Putative neuropeptides and an EF-hand motif region are encoded by a novel gene expressed in the four giant interneurons of the terrestrial snail	637
MATTERS ARISING		
W. P. J. M. Spooren, C. Gentsch and **C. Wiessner**	TUNEL-positive cells in the substantia nigra of C57BL/6 mice after a single bolus of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine	649
N. A. Tatton	Response to Matters Arising	653

VOLUME 85 NUMBER 3

LETTERS TO NEUROSCIENCE

T. E. Salt and **J. P. Turner** — Reduction of sensory and metabotropic glutamate receptor responses in the thalamus by the novel metabotropic glutamate receptor-1-selective antagonist S-2-methyl-4-carboxyphenylglycine — 655

A. Zangen, U. Herzberg, Z. Vogel and **G. Yadid** — Nociceptive stimulus induces release of endogenous β-endorphin in the rat brain — 659

M. Dezawa, T. Mutoh, A. Dezawa and **E. Adachi-Usami** — Putative gap junctional communication between axon and regenerating Schwann cells during mammalian peripheral nerve regeneration — 663

RESEARCH PAPERS

S. Otani, O. Blond, J.-M. Desce and **F. Crépel** — Dopamine facilitates long-term depression of glutamatergic transmission in rat prefrontal cortex — 669

Y. Kawaguchi and **Y. Kubota** — Neurochemical features and synaptic connections of large physiologically-identified GABAergic cells in the rat frontal cortex — 677

O. Kazennikov, B. Hyland, U. Wicki, S. Perrig, E. M. Rouiller and **M. Wiesendanger** — Effects of lesions in the mesial frontal cortex on bimanual co-ordination in monkeys — 703

I. N. Pigarev and **E. I. Rodionova** — Two visual areas located in the middle suprasylvian gyrus (cytoarchitectonic field 7) of the cat's cortex — 717

A. Berthele, D. J. Laurie, S. Platzer, W. Zieglgänsberger, T. R. Tölle and **B. Sommer** — Differential expression of rat and human type 1 metabotropic glutamate receptor splice variant messenger RNAs — 733

V. Bruno, B. Wroblewska, J. T. Wroblewski, L. Fiore and **F. Nicoletti** — Neuroprotective activity of N-acetylaspartylglutamate in cultured cortical cells — 751

S. M. Nair, Z. Zhao, D. K. H. Chou, S. A. Tobet and **F. B. Jungalwala** — Expression of HNK-1 carbohydrate and its binding protein, SBP-1, in apposing cell surfaces in cerebral cortex and cerebellum — 759

D. B. Campbell and **E. J. Hess** — Cerebellar circuitry is activated during convulsive episodes in the tottering (*tg*/*tg*) mutant mouse — 773

A.-J. Li, Y. Oomura, K. Sasaki, K. Suzuki, I. Tooyama, K. Hanai, H. Kimura and **T. Hori** — A single pre-training glucose injection induces memory facilitation in rodents performing various tasks: contribution of acidic fibroblast growth factor — 785

T. Skutella, J. C. Probst, U. Renner, F. Holsboer and **C. Behl** — Corticotropin-releasing hormone receptor (type I) antisense targeting reduces anxiety — 795

V. Ramesh and **V. M. Kumar** — The role of alpha-2 receptors in the medial preoptic area in the regulation of sleep-wakefulness and body temperature — 807

S. Consolo, M. C. Uboldi, C. Caltavuturo and **T. Bartfai** — Galanin stimulates the *N*-methyl-D-aspartate receptor/nitric oxide/cyclic GMP pathway *in vivo* in the rat ventral hippocampus — 819

I. S. Xu, S. Grass, X.-J. Xu and **Z. Wiesenfeld-Hallin** — On the role of galanin in mediating spinal flexor reflex excitability in inflammation — 827

K. E. Miller and **A. T. Salvatierra** — Apposition of enkephalin- and neurotensin-immunoreactive neurons by serotonin-immunoreactive varicosities in the rat spinal cord — 837

J. Maršala, I. Vanický, M. Maršala, P. Jalč, J. Orendáčová and **Y. Taira** — Reduced nicotinamide adenine dinucleotide phosphate diaphorase in the spinal cord of dogs — 847

H. A. Clarke, G. A. Dekaban and **L. C. Weaver** — Identification of lamina V and VII interneurons presynaptic to adrenal sympathetic preganglionic neurons in rats using a recombinant herpes simplex virus type 1 — 863

M. Tallent, M. A. Dichter and **T. Reisine** — Differential regulation of the cloned kappa and mu opioid receptors — 873

V. Simonneaux, P. Kienlen-Campard, J.-P. Loeffler, M. Basille, B. J. Gonzalez, H. Vaudry, P. Robberecht and **P. Pévet**	Pharmacological, molecular and functional characterization of vasoactive intestinal polypeptide/pituitary adenylate cyclase-activating polypeptide receptors in the rat pineal gland	887
E. M. Unterwald, B. Anton, T. To, H. Lam and **C. J. Evans**	Quantitative immunolocalization of mu opioid receptors: regulation by naltrexone	897
M. Asanuma, H. Hirata and **J. L. Cadet**	Attenuation of 6-hydroxydopamine-induced dopaminergic nigrostriatal lesions in superoxide dismutase transgenic mice	907
Z.-H. Meng, S. N. Pennington and **M. S. Dar**	Rat striatal adenosinergic modulation of ethanol-induced motor impairment: possible role of striatal cyclic AMP	919
C. Zona, A. Siniscalchi, N. B. Mercuri and **G. Bernardi**	Riluzole interacts with voltage-activated sodium and potassium currents in cultured rat cortical neurons	931
K. I. Rusin and **H. C. Moises**	μ-Opioid and $GABA_B$ receptors modulate different types of Ca^{2+} currents in rat nodose ganglion neurons	939
M. I. Glavinović, M. L. Vitale and **J.-M. Trifaró**	Comparison of vesicular volume and quantal size in bovine chromaffin cells	957
B. D. Philpot, D. Men, R. McCarty and **P. C. Brunjes**	Activity-dependent regulation of dopamine content in the olfactory bulbs of naris-occluded rats	969
A. Concas, P. Pierobon, M. C. Mostallino, P. Porcu, G. Marino, R. Minei and **G. Biggio**	Modulation of γ-aminobutyric acid (GABA) receptors and the feeding response by neurosteroids in *Hydra vulgaris*	979
L. G. Storchak, N. G. Pozdnyakova and **N. H. Himmelreich**	Differential effect of protein kinase inhibitors on calcium-dependent and calcium-independent [^{14}C]GABA release from rat brain synaptosomes	989

VOLUME 85 NUMBER 4

LETTERS TO NEUROSCIENCE

D. Schmitz, T. Gloveli, J. Behr, T. Dugladze and **U. Heinemann**	Subthreshold membrane potential oscillations in neurons of deep layers of the entorhinal cortex	999
B. Schilström, H. M. Svensson, T. H. Svensson and **G. G. Nomikos**	Nicotine and food induced dopamine release in the nucleus accumbens of the rat: putative role of α7 nicotinic receptors in the ventral tegmental area	1005

RESEARCH PAPERS

H. Yasuda, S. Kinoshita and **T. Tsumoto**	Localized contribution of *N*-methyl-D-aspartate receptors to synaptic input-induced rise of calcium in apical dendrites of layer II/III neurons in rat visual cortex	1011
F. Blanchet, C. Gauchy, S. Perez, P. Soubrié, J. Glowinski and **M. L. Kemel**	Distinct modifications by $neurokinin_1$ (SR140333) and $neurokinin_2$ (SR48968) tachykinin receptor antagonists of the *N*-methyl-D-aspartate-evoked release of acetylcholine in striosomes and matrix of the rat striatum	1025
H. Shibuya and **T. Yamamoto**	Electrophysiological and morphological features of rat claustral neurons: an intracellular staining study	1037
J. Turchan, B. Przewłocka, W. Lasoń and **R. Przewłocki**	Effects of repeated psychostimulant administration on the prodynorphin system activity and kappa opioid receptor density in the rat brain	1051
C. M. Stienstra, F. Van Der Graaf, A. Bosma, Y. J. G. Karten, W. Hesen and **M. Joëls**	Synaptic transmission in the rat dentate gyrus after adrenalectomy	1061
R.-J. Liu, M. Qiang and **J.-T. Qiao**	Nociceptive c-Fos expression in supraspinal areas in avoidance of descending suppression at the spinal relay station	1073
M. Dai and **J. M. Tepper**	Do silent dopaminergic neurons exist in rat substantia nigra *in vivo*?	1089
I. Sziráki, K. P. Mohanakumar, P. Rauhala, H. G. Kim, K. J. Yeh and **C. C. Chiueh**	Manganese: a transition metal protects nigrostriatal neurons from oxidative stress in the iron-induced animal model of Parkinsonism	1101

R. K. Pandita, A. Nylén and **K.-E. Andersson**	Oxytocin-induced stimulation and inhibition of bladder activity in normal, conscious rats—influence of nitric oxide synthase inhibition	1113
W. Sihver, P. G. Gillberg and **A. Nordberg**	Laminar distribution of nicotinic receptor subtypes in human cerebral cortex as determined by [^{3}H](−)nicotine, [^{3}H]cytisine and [^{3}H]epibatidine *in vitro* autoradiography	1121
F. Frischknecht and **A. D. Randall**	Voltage- and ligand-gated ion channels in floor plate neuroepithelia of the rat	1135
V. Meske, U. Hamker, F. Albert and **T. G. Ohm**	The effects of β/A4-amyloid and its fragments on calcium homeostasis, glial fibrillary acidic protein and S100β staining, morphology and survival of cultured hippocampal astrocytes	1151
K. J. Page, R. D. Hollister and **B. T. Hyman**	Dissociation of apolipoprotein and apolipoprotein receptor response to lesion in the rat brain: an *in situ* hybridization study	1161
F. Sotty, F. Soulière, P. Brun, G. Chouvet, R. Steinberg, P. Soubrié, B. Renaud and **M. F. Suaud-Chagny**	Differential effects of neurotensin on dopamine release in the caudal and rostral nucleus accumbens: a combined *in vivo* electrochemical and electrophysiological study	1173
F. J. Northington, R. J. Traystman, R. C. Koehler, J. D. Rothstein and **L. J. Martin**	Regional and cellular expression of glial (GLT1) and neuronal (EAAC1) glutamate transporter proteins in ovine fetal brain	1183
P. Achermann and **A. A. Borbély**	Coherence analysis of the human sleep electroencephalogram	1195
C. T. Wotjak, J. Ganster, G. Kohl, F. Holsboer, R. Landgraf and **M. Engelmann**	Dissociated central and peripheral release of vasopressin, but not oxytocin, in response to repeated swim stress: new insights into the secretory capacities of peptidergic neurons	1209
Y. Matsuoka, Y. Kitamura, M. Okazaki, J. Kakimura, I. Tooyama, H. Kimura and **T. Taniguchi**	Kainic acid induction of heme oxygenase *in vivo* and *in vitro*	1223
M. T. Akbar, M. Rattray, R. J. Williams, N. W. S. Chong and **B. S. Meldrum**	Reduction of GABA and glutamate transporter messenger RNAs in the severe-seizure genetically epilepsy-prone rat	1235
C. M. Thiel, J. P. Huston and **R. K. W. Schwarting**	Hippocampal acetylcholine and habituation learning	1253
G. Hervieu and **P. C. Emson**	The localization of somatostatin receptor 1 (sst_1) immunoreactivity in the rat brain using an N-terminal specific antibody	1263
E. A. Kiyatkin and **G. V. Rebec**	Heterogeneity of ventral tegmental area neurons: single-unit recording and iontophoresis in awake, unrestrained rats	1285
L. E. Kalynchuk, J. P. J. Pinel, D. Treit, S. J. Barnes, J. C. McEachern and **T. E. Kippin**	Persistence of the interictal emotionality produced by long-term amygdala kindling in rats	1311
G. L. Barrett, A. Georgiou, K. Reid, P. F. Bartlett and **D. Leung**	Rescue of dorsal root sensory neurons by nerve growth factor and neurotrophin-3, but not brain-derived neurotrophic factor-4, is dependent on the level of the p75 neurotrophin receptor	1321
MATTERS ARISING		
A. K. Mudher and **V. H. Perry**	Using okadaic acid as a tool for the *in vivo* induction of hyperphosphorylated tau	1329
A.-M. Van Dam, J. G. J. M. Bol, R. Binnekade and **F. L. van Muiswinkel**	Acute or chronic administration of okadaic acid to rats induces brain damage rather than Alzheimer-like neuropathology	1333
T. Arendt, M. Holzer, M. K. Brückner, C. Janke and **U. Gärtner**	The use of okadaic acid *in vivo* and the induction of molecular changes typical for Alzheimer's disease	1337

AUTHOR INDEX

Achermann, P. 1195
Acquas, E. 73
Adachi-Usami, E. 663
Airaksinen, M. S. 361
Akaike, N. 383
Akbar, M. T. 1235
Albert, F. 1151
Anderson, R. 93
Andersson, K.-E. 1113
Anton, B. 897
Arendt, T. 1337
Asanuma, M. 907
Ashley, R. H. 205

Balaban, P. M. 637
Barden, N. 415
Barnes, J. C. 93
Barnes, S. J. 1311
Barrett, G. L. 1321
Bartfai, T. 819
Bartlett, P. F. 1321
Bartoli, M. 111
Basille, M. 887
Baux, G. 85
Behl, C. 795
Behnisch, T. 1
Behr, J. 999
Belyavsky, A. V. 637
Bernardi, G. 931
Berthele, A. 733
Betty, M. 475
Biggio, G. 979
Binnekade, R. 1333
Blakemore, W. F. 269
Blanchet, F. 1025
Bliss, T. V. P. 93
Blond, O. 669
Bodanov, Y. D. 637
Bol, J. G. J. M. 1333
Bonfanti, L. 527
Borbély, A. A. 1195
Bosma, A. 1061
Brodie, M. J. 217
Brückner, M. K. 1337
Brun, P. 1173
Brunjes, P. C. 969
Bruno, V. 751
Buffo, A. 587
Bujdoso, R. 269
Busel, B. I. 347

Cadet, J. L. 907
Cain, D. P. 93
Caltavuturo, C. 819
Cambon, K. 93
Campbell, D. B. 773
Campbell, J. M. 323
Castets, F. 111
Cavarretta, I. 569
Chapman, K. E. 205
Chiueh, C. C. 1101
Chong, N. W. S. 1235
Chou, D. K. H. 759
Chouvet, G. 1173
Chun, L. L. Y. 627
Clarke, H. A. 863
Cockett, M. I. 475
Concas, A. 979
Consolo, S. 819
Cossu, G. 327
Crépel, F. 669

Dai, M. 1089
Danober, L. 427
Dar, M. S. 919
Davies, H. A. 93
Dekaban, G. A. 863
Desce, J.-M. 669
Dezawa, A. 663
Dezawa, M. 663
Dichter, M. A. 873
Diebler, M.-F. 85
Dörner, L. 395
Dugar, A. 123
Dugladze, T. 999
Elde, R. 281
Emson, P. C. 1263
Engelmann, M. 1209
Errington, M. L. 93
Evans, C. J. 897
Fasolo, A. 527
Fattore, L. 327
Favor, G. 323
Fedulova, S. A. 497
Fellows, L. A. 93
Fibiger, H. C. 73
Fiore, L. 751
Fitoussi, N. 405
Fossier, P. 85
Fratta, W. 327
Frischknecht, F. 1135
Fronte, M. 587

Gallatz, K. 45
Ganster, J. 1209
Garcia-de-Yebenes, E. 557
Gärtner, U. 1337
Gauchy, C. 1025
Gebke, E. 509
Gentsch, C. 649
Georgieva, J. 375
Georgiou, A. 1321
Gerstberger, R. 509
Gessa, G. L. 327
Gillberg, P. G. 1121
Gilmore, D. P. 323
Givalois, L. 557
Glavinović, M. I. 957
Gloveli, T. 999
Glover, R. G. 605
Glowinski, J. 1025
Gómez-Pinilla, F. 53
Gonzalez, B. J. 887
Grass, S. 827
Gray, P. A. 361
Gray, R. A. 93
Grinevich, V. 557
Gritti, I. 149
Growney, C. A. 323
Guenther, E. 249

Haas, C. A. 521
Hajós, F. 45
Hamker, U. 1151
Hanai, K. 785
Harata, N. 383
Harnish, S. W. 475
Heinemann, U. 999
Henderson, D. 579
Hervieu, G. 1263
Herzberg, U. 405, 659
Hesen, W. 1061
Hess, E. J. 773

Higgins, G. A. 93
Himmelreich, N. H. 989
Hirata, H. 907
Hoffman, G. E. 259
Hoh, T. 93
Hollister, R. D. 1161
Holsboer, F. 415, 795, 1209
Holzer, M. 1337
Hori, T. 785
Huang, S.-J. 239
Huston, J. P. 1253
Hyland, B. 703
Hyman, B. T. 1161

Ishiura, S. 311
Israel, M. 85

Jalč, P. 847
Janke, C. 1337
Joëls, M. 1061
Jones, E. G. 331
Jones, P. A. 229
Jungalwala, F. B. 759
Jurzak, M. 509

Kachidian, P. 111
Kakimura, J. 1223
Kalynchuk, L. E. 1311
Kameda, N. 311
Karten, Y. J. G. 1061
Kawaguchi, Y. 677
Kazennikov, O. 703
Keast, J. R. 543
Kelly, P. A. T. 63
Kemel, M. L. 1025
Kerkerian-Le Goff, L. 111
Kesslak, J. P. 53
Kienlen-Campard, P. 887
Kim, H. G. 1101
Kimura, H. 785, 1223
Kinoshita, S. 1011
Kippin, T. E. 1311
Kira, T. 383
Kitamura, Y. 1223
Kiyatkin, E. A. 1285
Klapstein, G. J. 361
Kobayashi, T. 311
Koehler, R. C. 1183
Kohl, G. 1209
Kovács, K. 135
Krenz, N. R. 443
Kreutzberg, G. W. 521
Krupnik, V. E. 627
Kubota, Y. 677
Kultas-Ilinsky, K. 179
Kumar, V. M. 807

Lakoski, J. M. 123
Lam, H. 897
Landgraf, R. 415, 1209
Large, C. H. 93
Lasoń, W. 1051
Lau, K. L. 605
Laurie, D. J. 733
Lawson, S. N. 293
Leontiev, V. 179
Leung, D. 1321
Li, A.-J. 785
Li, S. 557
Lieberman, D. N. 361
Linkenhoker, B. 605

Liu, R.-J. 1073
Loeffler, J.-P. 887
Lückhoff, A. 487
Luhmann, H. J. 15, 29

Magnaghi, V. 569
Makara, G. B. 135
Mancia, M. 149
Marino, G. 979
Mariotti, M. 149
Maršala, J. 847
Maršala, M. 847
Martellotta, M. C. 327
Martin, C. 205
Martin, L. J. 1183
Martini, L. 569
Matsuoka, Y. 1223
McBean, D. E. 63
McCarty, R. 969
McEachern, J. C. 1311
McFadden, S. L. 579
Melcangi, R. C. 569
Meldrum, B. S. 1235
Men, D. 969
Meng, Z.-H. 919
Mercuri, N. B. 931
Merighi, A. 527
Meske, V. 1151
Meyer, M. 361
Miller, K. E. 837
Minei, R. 979
Mittmann, T. 15, 29
Mody, I. 361
Mohanakumar, K. P. 1101
Moises, H. C. 939
Monaghan, D. T. 615
Montkowski, A. 415
Morrisett, R. A. 615
Mostallino, M. C. 979
Mothet, J.-P. 85
Mudher, A. K. 1329
Müller, A. R. 509
Mutoh, T. 663

Nair, S. M. 759
Nicoletti, F. 751
Nieoullon, A. 111
Nomikos, G. G. 1005
Nordberg, A. 1121
Nörenberg, W. 395
Norgren, R. B. Jr 615
Northington, F. J. 1183
Nylander, I. 375
Nylén, A. 1113

Obukhov, A. G. 487
Oestreicher, A. B. 587
Ögren, S. O. 375
Ohm, T. G. 1151
Ohno, S. 311
Okazaki, M. 1223
Oomura, Y. 785
Orendáčová, J. 847
Otani, S. 669
O'Callaghan, J. P. 123
O'Leary, M. T. 269

Page, K. J. 1161
Palkovits, M. 135
Pandita, R. K. 1113
Pape, H.-C. 427
Patanow, C. 123
Payne, A. P. 323
Pelletier, G. 557
Pennington, S. N. 919
Peretto, P. 527
Perez, S. 1025
Perrig, S. 703
Perry, V. H. 1329
Perry, M. J. 293
Pévet, P. 887
Pfreundtner, C. 395
Philpot, B. D. 969
Pierobon, P. 979
Pigarev, I. N. 717
Pinel, J. P. J. 1311
Piva, F. 569
Platzer, S. 733
Polgár, E. 459
Porcu, P. 979
Poteryaev, D. A. 637
Pozdnyakova, N. G. 989
Priller, J. 521
Probst, J. C. 795
Przewłocka, B. 1051
Przewłocki, R. 1051

Qiang, M. 1073
Qiao, J.-T. 1073
Qü, M. 15, 29

Rabin, B. S. 259
Ramesh, V. 807
Randall, A. D. 1135
Rassnick, S. 259
Rattray, M. 1235
Rauhala, P. 1101
Rebec, G. V. 1285
Reddington, M. 521
Reid, K. 1321
Reisine, T. 873
Renaud, B. 1173
Renner, U. 795
Reymann, K. G. 1
Rhodes, K. J. 475
Ritchie, I. M. 63
Robberecht, P. 887
Robinson, D. W. 239
Rodionova, E. I. 717
Ross, F. M. 217
Rossi, F. 587
Rossokhin, A. V. 1
Rothstein, J. D. 1183
Rouiller, E. M. 703
Rusin, K. I. 939
Russell, D. 323

Sakata, T. 383
Salt, T. E. 655
Salvatierra, A. T. 837
Sandin, J. 375
Sanzharovksy, A. V. 347
Sasaki, K. 785
Saunders, R. J. 543
Schäfer, M. 281
Schilström, B. 1005
Schleicher, A. 29, 45
Schmid, S. 249
Schmitz, D. 999
Schött, P. A. 375
Schultz, G. 487
Schwarting, R. K. W. 1253
Seckl, J. R. 205
Shibuya, H. 1037
Shimokawa, M. 311
Sihver, W. 1121
Sillaber, I. 415
Simonneaux, V. 887
Siniscalchi, A. 931
Skutella, T. 795
Smith, R. A. 229
So, V. 53
Sokolov, M. V. 1
Sommer, B. 733
Sotnik-Barkai, I. 405
Sótonyi, P. 45
Sotty, F. 1173
Soubrié, P. 1025, 1173
Souliére, F. 1173
Spanagel, R. 415
Spike, R. C. 459
Spooren, W. P. J. M. 649
Starke, K. 395
Stein, C. 281
Steinberg, R. 1173
Steinstra, C. M. 1061
Stewart, M. 93
Stone, T. W. 217, 229, 323
Storchak, L. G. 989
Storozhuk, V. M. 347
Suaud-Chagny, M. F. 1173
Suzuki, K. 785
Sved, A. F. 259
Svensson, H. M. 1005
Svensson, T. H. 1005
Szabo, B. 395
Sziráki, I. 1101

Taira, Y. 847
Tallent, M. 873
Taniguchi, T. 1223
Tatton, N. A. 653
Tauc, L. 85
Tepper, J. M. 1089
Terenius, L. 375
Thiel, C. M. 1253
Thoenen, H. 361
Thomas, M. P. 615
To, T. 897
Tobet, S. A. 759
Todd, A. J. 459
Tölle, T. R. 733
Tooyama, I. 785, 1223
Tornatore, C. 405
Tóth, Zs. 135
Traystman, R. J. 1183
Treit, D. 1311
Trifaró, J.-M. 957
Tsumoto, T. 1011
Turchan, J. 1051
Turner, J. P. 655

Uboldi, M. C. 819
Ueda, H. 311
Unterwald, E. M. 897
Usuki, F. 311

Van Dam, A.-M. 1333
van der Graaf, F. 1061
van Muiswinkel, F. L. 1333
Vanický, I. 847
Vasilyev, D. V. 497
Vaudry, H. 887
Veselovsky, N. S. 497
Vietla, S. 361
Vitale, M. L. 957
Vogel, Z. 659
Voronin, L. L. 1
Vuillet, J. 111

Weaver, L. C. 443, 863
Webster, W. W. 615
Weir, J. 323
Whiting, P. J. 179
Wicki, U. 703
Wiesendanger, M. 703
Wiesenfeld-Hallin, Z. 827
Wiessner, C. 649
Williams, R. J. 1235
Wilson, C. 73
Wotjak, C. T. 1209
Wroblewska, B. 751
Wroblewski, J. T. 751
Wylie, D. R. W. 605

Xu, I. S. 827
Xu, X.-J. 827

Yadid, G. 405, 659
Yamamoto, T. 1037
Yamasaki, E. N. 627
Yasuda, H. 1011
Yeh, K. J. 1101
Young, W. S. III 135

Zakharov, I. S. 637
Zangen, A. 659
Zhang, Q. 281
Zhao, Z. 759
Zheng, X. Y. 579
Zieglgänsberger, W. 733
Zilles, K. 15, 29, 45
Zona, C. 931
Zsarnovszky, A. 45

α-latrotoxin, 989
α7, 1005
β-amyloid, 1151
β-endorphin, 659
β subunit, 475
γ subunit, 475
κ opioid receptor, 1051
μ-opioid receptor, 939

^{3}H nicotinic ligands, 1121
4-aminopyridine, 989
5,7-dihydroxytryptamine, 123
6-hydroxydopamine, 281, 907

accessory optic system, 605
acetylcholine, 73, 615
acetylcholine release, 85, 1025
acidic fibroblast growth factor, 785
activation properties, 239
adenine dinucleotides, 217
adenine nucleotides, 521
adenocorticotrophic hormone, 795
adenosine, 217, 229, 919
adenylyl cyclase, 873
adrenal and sexual steroids, 557
adrenalectomy, 135
afferent stimulation, 969
ageing, 569
alpha activity, 1195
Alzheimer's disease, 93, 1151, 1161
aminoacylhistidine dipeptides, 527
AMPA receptors, 819
amphetamine, 347, 1051
amygdala, 135, 1311
analgesia, 837
androgen receptors, 543
antidepressant treatment, 415
antidromic activation, 1089
antinociception, 837
anti-peptide antiserum, 1263
antisense oligodeoxynucleotides, 795
anxiety, 795, 1311
apolipoprotein E, 93, 1161
apolipoprotein J, 1161
apomorphine, 1089
apoptosis, 361, 1061, 1321
area V4, 717
area V4T, 717
arousal, 331, 1253
AS/AGU rat, 323
astrocyte, 53
astrocytes, 405, 627, 1151
AT1 and AT2 receptor subtypes, 509
ATP, 217
AtT-20 cells, 873
autonomic nervous system, 543
autonomic dysreflexia, 443
axon degeneration, 269
axon regeneration, 587

barrel cortex, 45
basal forebrain, 149
basket cell, 677
behavioural plasticity, 53
benzodiazepines, 979
bimanual co-ordination, 703
biocytin, 663, 1037
brain, 527
brain development, 1183
brain localization, 475
bystander damage, 269

c-*fos*, 773
CA1, 1
Ca^{2+}, 85
Ca^{2+}-ATPase pumps, 85
Ca^{2+}-induced Ca^{2+} release, 205
calcitonin gene-related peptide, 293, 521
calcium, 669, 1011, 1151
calcium-binding proteins, 637
calcium buffering, 361
calcium imaging, 1011
calcium channel, 395, 773
calcium channels, 1135
calcium entry, 487
calcium regulation, 487
calmodulin-binding protein, 111
cAMP, 919, 1151
cannabinoid receptor, 395
cannabinoid receptor CB_1, 327
capsaicin, 281
carbon electrodes, 957
carrageenan, 827
catechol metabolites, 405
cation channels, 487
caudal nucleus accumbens, 1173
cell migration, 527
cell proliferation, 527
cell size, 293
cell-specific cortical projections, 331
cerebellum, 759, 773
cerebral cortex, 759
CGRP, 587
CGS21680, 229
chandelier cell, 677
chloride conductance, 427
chloride current, 383
cholecystokinin, 677
cholera toxin subunit B, 605
choline acetyltransferase, 149, 863
chromaffin cells, 957
CNS, 269
CNTF, 1321
cocaine, 1051
cochlear nerve/drug effects, 579
cognition, 93
coherence, 1195
conditioned reflex, 347
confocal microscopy, 459
connexin, 663
consciousness, 331
convulsion, 773
corpus striatum, 395
cortex, 931
cortical cultures, 751
cortical infarct, 29
cortical slice, 15
corticogenesis, 1183
corticosterone, 1061
corticostriatal, 111, 615
corticotropin-releasing hormone, 795
corticotropin-releasing hormone receptor, 795
CRH mRNA, 135, 557
cystometry, 1113

deafferentation, 45
deep layers of the entorhinal cortex, 999
development, 239, 249, 1135
dinucleotides, 217
disector method, 459
DMPK (myotonic dystrophy protein kinase), 311
dog, 847
DOPAC, 323

dopamine, 73, 323, 347, 669, 1025, 1101, 1285
dopamine transporter, 907
dorsal hippocampus, 819
dorsal horn, 827
dorsal root ganglia, 281
dorsal root ganglion, 293, 497
dorsolateral funiculus, 1073
Drosophilia photoreceptors, 487
dye coupling, 663
dynorphin, 375

EAAC-1, 1235
electrochemistry, 1173
electron microscopy, 111
electrophysiology, 239, 1061, 1135, 1173
endoplasmic reticulum, 311
environmental enrichment, 53
epilepsy, 931
epileptiform activity, 217
ethanol, 919
excitatory postsynaptic potentials, 1
excitotoxicity, 229, 579, 751, 1183
experience-dependent, 969
exploratory behaviour, 1253
extracellular fluid, 405

facilitation, 85
fear, 1311
feeding response, 979
ferrous citrate, 1101
fetal raphé transplants, 63
field potential, 1061
fimbria–fornix/cingulum bundle, 123
floor plate, 1135
formalin test, 659, 1073
Fos-like immunoreactivity, 1073
frontal cortex, 73

GABA, 73, 383, 1285
GABA receptors, 1135
$GABA_A$ receptor, 29, 557
$GABA_A$ receptors, 979, 1135
$GABA_A$ receptor subtypes, 179
$GABA_B$ receptor, 939
GABAergic inhibition, 15
galanin receptor antagonist, 827
gap junction, 663
GAP-43, 587
GAT-1, 1235
general anaesthetics, 979
genetic engineering, 405
GEP rat, 1235
gephyrin, 427
GFAP, 1151
glia, 269
glial fibrillary acidic protein, 123
GLT-1, 1235
glucose, 785
glutamate/neurotoxicity, 579
glutamate, 347, 615, 863, 1285
glutamate transport, 1183
glutamic acid decarboxylase, 149
glycine, 383
glycine receptors, 427
glycoprotein Po, 569
glycosylation, 1263
GP330, 1161
granule cells, 759
guanine nucleotide binding protein, 475
guinea-pig, 427

haloperidol, 347
handling, 1253
heme oxygenase (HO), 1223
heterologous desensitization, 873
hippocampal neuron, 383
hippocampus, 53, 123, 375, 1061, 1223
histofluorescence, 807
HNK-1 antigens, 759
homologous desensitization, 873
human, 733
human cerebral cortex, 1121
human muscle development, 311
human sleep, 1195
Hydra vulgaris, 979
hydroxyl radical, 1101
hypercapnia, 63
hyperexcitability, 15
hypothalamic–pituitary–adrenocortical system, 415
hypothalamic–neurohypophysial system, 1209
hypothalamic–pituitary–adrenal system, 1209
hypothalamo–pituitary–adrenocortical axis, 557

immature neurons, 759
immediate early gene, 587
immunocytochemistry, 111, 459
immunohistochemistry, 897, 1263
in situ hybridization, 135, 205, 475, 733, 1235
in vitro, 311
in vivo microdialysis, 415, 1253
in vivo study, 1037
inactivation properties, 39
inferior colliculus/functional plasticity, 579
inflammation, 281
inflexion point of action potential, 1037
inhibitory postsynaptic current, 395
innervation, 311
intra- and extracellular recordings, 15
intracellular recording, 1037
intrathecal, 827
intrathecal injection, 1113
intrinsic membrane properties, 1037
ionotropic glutamate receptors, 29
iontophoresis, 655, 1285
ischemia, 29
ischemia/hypoxia, 361

kainate, 229
kainic acid, 1223
kappa-receptors, 375
kindling, 1311
kinetic properties, 249

L-type Ca^{2+} channel, 939
laminar distribution, 1121
lectins, 293
lesion, 703
lipid peroxidation, 1101
local circuits, 179
local cerebral blood flow, 63
local cerebral glucose utilization, 63
long-term potentiation (LTP), 1
LRP, 1161
LTP, 93
LY367385, 655

major histocompatibility complex (MHC), 1223
medial forebrain bundle, 1089
medial preoptic area, 807
medium spiny neuron, 395
melatonin, 887
memory, 785
mesolimbic, 1005
mesolimbic system, 415
metabolites, 569
metabotropic glutamate receptor antagonist, 655
metabotropic glutamate receptors, 751
metabotropic glutamate receptor type I, 733

methlyenedioxymethamphetamine, 63
methyllycaconitine, 1005
mGluR1, 655
MHC knockout, 269
mice, 327, 415
microdialysis, 73, 323, 405, 659, 1005, 1209
microdialysis *in vivo*, 819
microglia, 1223
micturition reflex, 1113
middle cerebral artery occlusion, 15, 29
monkey, 703
morphine, 415
Morris water maze, 785
motor equivalence principle, 703
motor incoordination, 919
motor pathways, 179
movement initiation, 703
mu opioid receptors, 897
multiple sclerosis, 269
muscle spasticity, 443
myelinated primary afferent fibers, 443
myelin basic protein, 569

N-methyl-D-aspartate, 15, 1025
N-type Ca^{2+} channel, 939
NAAG, 751
NADPH diaphorase, 847
naltrexone, 897
naris closure, 969
nerve regeneration, 663
neuroglia, 521
neuronal Ca^{2+} signal, 205
neuronal death, 587
neuronal maturation, 1183
neuronal migration, 759
neuronal plasticity, 347
neuronal properties, 717
neuronal vulnerability, 361
neuropeptide, 1263
neuropeptide precursor, 637
neuropeptides, 1209
neuroprotection, 931
neurosteroids, 557, 979
neurotransmitters, 637
neurotrophins, 1321
NGF, 1321
nicotinic receptor subtypes, 1121
NMDA receptors, 669, 1011
nociception, 655, 659, 827, 837
nociceptive neurons, 1073
non-pyramidal cell, 677
non-REM sleep, 1195
noradrenaline, 73
noradrenergic, 259
nor-binaltorphimine, 375
NOS inhibitors, 819
novelty, 1253
nucleus accumbens, 1051
nystatin-perforated patch, 383

octadecaneuropeptide, 557
ODQ, 819
ontogenetic development, 497
open field, 1253
opioid receptor, 281
optic flow, 605
optical registration, 637
optokinetic, 605
organum vasculosum laminae terminalis, 509
OVLT, 509
oxygen-glucose deprivation, 361

p75, 1321
pain, 659, 827
paired-pulse facilitation, 1
parasympathetic, 543
paraventricular nucleus, 135, 1209
paraventricular nucleus of the hypothalamus, 259
Parkinson's disease, 323, 405, 907, 1101
parvalbumin, 677
passive avoidance task, 785
patch-clamp, 615, 931
patch-clamp recording, 249
pelvic ganglia, 543
Phaseolus vulgaris leucoagglutinin, 135
phases, 1
pineal gland, 887
pituitary adenylate cyclase-activating polypeptide, 887
plasticity, 45, 93, 527
post mortem brain, 205
postlesional plasticity, 29
potassium channels, 1135
potassium current, 873
potassium currents, 497
prefrontal cortex, 669
preoptic-anterior hypothalamus, 149
presynaptic inhibition, 395
primary culture, 509
primate, 179
primates, 331
prodynorphin, 1051
progesterone, 569
protein kinase inhibitors, 989
puberty, 543
purinergic receptors, 521
purines, 217, 229
Purkinje cell, 773

Q-type Ca^{2+} channel, 939
quantitative autoradiography, 1121

R-type Ca^{2+} channel, 939
radial glia, 627
raphespinal, 837
rat, 1, 249, 427, 733, 1073
rat brain, 897, 1263
receptor, 1263
receptor autoradiography, 897
receptor upregulation, 897
rectal temperature, 807
rehabilitation, 53
REM sleep, 1195
repair, 93
retinal development, 627
retinal ganglion cell, 239, 249
retrograde transport, 149
reward, 327, 1005
rodents, 785
rostral nucleus accumbens, 1173

S100β, 1151
sacral parasympathetic, 837
sarcoplasmic reticulum, 311
schizophrenia, 669
Schwann cells, 569
sciatic nerve, 569
seizure, 1235, 1311
self-administration, 327
self-motion, 605
sensory deprivation, 969
septal nuclei, 259
serotonin (5-hydroxytryptamine), 123
serotonin receptor, 837
serotonin uptake sites, 63
sevoflurane, 383
Sf9 cells, 487
SFO, 509
silent dopamine neurons, 1089

single-unit recording, 1285
sleep, 807
sleep spindles, 1195
somatosensory, 655
somatostatin, 293, 677
somatostatin receptor, 873
spatial learning, 375
spinal autonomic nuclei, 863
spinal cord, 459, 847, 1113
spinal cord injury, 443
spinal sympathetic organization, 863
splice variants, 733
SR 141716A, 327
stress, 259, 795
striatal compartments, 1025
striatin, 111
striatum, 323, 919, 1051, 1089
subependymal layer, 527
subfornical organ, 509
substance P, 293
substantia nigra, 1089, 1101
subtractive cloning, 637
successful aging, 53
superoxide anion, 907
superoxide dismutase, 907
supplementary motor area, 703
supraoptic nucleus, 1209
suprasylvian gyrus, 717
sympathetic, 543
sympathetic preganglionic neurons, 443
synaptic, 615
synaptic organization, 45
synaptic plasticity, 669
synaptic vesicles, 85
synaptosomal-associated protein (mol. wt 25,000), 123
synaptosome, 989

tachykinin, 1025
tanycytes, 627
temporal lobe epilepsy, 1311
tetrodotoxin, 999
thalamostriatal, 111
thalamus, 149, 179, 331, 655
theta-oscillations, 999
topography, 717
tottering, 773
transcription factor, 587
transcription factors, 521
transgenic mice, 907
trk protein, 1321
TRPL, 487
TUNEL, 361
tyrosine hydroxylase, 615, 969

unmyelinated primary afferent fibers, 443

vasoactive intestinal polypeptide, 145, 887
ventral noradrenergic bundle, 807
ventral tegmental area, 1173, 1285
vesicular diameter, 957
vesicular secretion, 957
VIP agonist, 887
VIP antagonist, 887
visual cortex, 1011
visual–vestibular integration, 605
VLDLr, 1161
voltage-activated currents, 931
voltage-activated sodium current, 249
voltage-dependent calcium channels, 1011
voltage-gated calcium currents, 239

wakefulness, 807
whole-cell patch-clamp recording, 1011
WIN 55,212-2, 327
withdrawal behaviour, 637

ZM241385, 229

[^{14}C]GABA release, 989

INTERNATIONAL BRAIN RESEARCH ORGANIZATION

World Federation of Neuroscientists

Incorporated as an independent international organization
Ottawa 1961

D. P. Purpura (U.S.A.)	*President*
M. Ito (Japan)	*Honorary President*
C. Belmonte (Spain)	*Secretary-General*
B. A. Milner (Canada)	*Executive Secretary*
P. Strata (Italy)	*Treasurer*
S. Zeki (U.K.)	*Director, Workshop and Symposia Programme*
G. W. Kreutzberg (Germany)	*Chairman, Publications Committee*
S. H. Barondes (U.S.A.)	*Director, Fellowships Programme*
C. Blakemore (U.K.)	*Managing Editor, IBRO News*

Secretary-General

Dr C. Belmonte
Inst. de Neurociencias
Univ. Alicante
Apdo 374
Alicante 03080
Spain

Executive Secretary

Prof. B. A. Milner
Montreal Neurol. Inst.
3801, University St.
Montreal, Quebec,
Canada H3A 2B4

IBRO Secretariat
Executive Director

Ms Olga Popoff
51, Bd. de Montmorency
75016 Paris
France

IBRO NEUROSCIENCE CALENDAR

The International Brain Research Organization publishes a calendar of events in the neurosciences. It is hoped that the calendar, which is published in *IBRO News*, will help scientists in the field to plan ahead for the meetings they wish to attend. The aim of the calendar is to contain as many announcements as possible of forthcoming scientific meetings in the neurosciences throughout the whole world. It is in a form suitable for mounting on a wall.

IBRO invites organizers of meetings to send information on their meetings, together with a statement as to whether the date is definite or provisional, to: Office of *IBRO News*, University Laboratory of Physiology, Parks Road, Oxford OX1 3PT, U.K.

Printed in Great Britain by Henry Ling Ltd. , at the Dorset Press, Dorchester, Dorset